

REMARKS

This is in response to the Office Action mailed on September 4, 2003 in which claims 1-5, 7-10, 13 and 17-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,223,998 (Tokuyama et al.). To anticipate a claim, a reference must teach, suggest, or disclose each and every element as set forth in the claim. It is respectfully submitted that Tokuyama et al. does not teach, suggest or disclose each and every element of the inventions recited in independent claims 1, 7 and 17.

Amended claim 1 recites a slider for supporting a transducing head proximate a rotating disc. The slider includes a slider body, including a primary air bearing and a secondary air bearing, the slider body having a disc opposing face bounded by a leading edge and a trailing edge. The transducing head is located on the disc opposing face proximate the trailing edge and on the secondary air bearing. The slider also includes means for permitting vertical movement of the transducing head with respect to the slider body in response to local disc surface topography to maintain head media spacing (HMS) between the transducing head and the disc at a substantially constant separation distance as the slider flies above the disc, wherein the means are exposed at the disc opposing face.

The second element of claim 1 is recited as a "means-plus-function" as prescribed in 35 U.S.C. §112, sixth paragraph. In order for a prior art reference to anticipate claim 1, the reference must teach an element that performs the identical function specified in the claim and the structure of the prior art element must be the same as or equivalent to the structure described in the specification that corresponds to the means-plus-function. See MPEP 2182. Therefore, in order to anticipate claim 1, Tokuyama et al. must disclose a structure that is the same as or equivalent to the means element. One of the factors to be considered in deciding whether a prior art element is equivalent to a means-plus-function limitation is whether the prior art element performs the identical function specified in the claim in substantially the same way and produces substantially the same result as the means-plus-function limitation. *Kemco Sales, Inc. v. Control Papers Co.*, 204 F.3d 1352, 54 U.S.P.Q.2d 1308 (Fed. Cir. 2000).

A comparison of the teachings of Tokuyama et al. to the structure disclosed in present application reveals differences between the slider of Tokuyama et al. and the slider of the present

invention, thereby resulting in a finding that the two are not interchangeable or equivalent. The Examiner states the slider in FIGS. 17-19 of Tokuyama et al. anticipates the invention as recited by claim 1. Slider 1 in FIGS. 17-19 of Tokuyama et al. includes a leading edge 11 and a trailing edge 12. Slider 1 includes float rails 2, which extend in parallel in a longitudinal direction of slider 1. Outer surface 20 of each float rail 2 consists of a taper portion 21 and a flat surface portion 22. The portion of the slider surface between float rails 2 is recessed and has a greater spacing from the magnetic disc surface than that of flat surface portion 22, which is called bleed surface 3. In FIGS. 17-19, the magnetic head 61 is mounted on a domed surface 62, which is in turn mounted on an intermediate part of a flexible member 92. Ends of flexible member 92 are secured to bleed surface 3. Flexible member 92 is in form of a leaf spring, so that its intermediate part is held spaced away from bleed surface 3. Flexible member 92 operates to push magnetic head 61 into contact with disc 100.

Tokuyama et al. does not teach, suggest or disclose the second means-plus-function element of claim 1 because flexible member 92 does not perform the identical function specified by the means element of claim 1. A significant difference between Tokuyama et al. and the present invention, is that the "means for permitting vertical movement of the transducing head with respect to the slider body" of claim 1 (and in addition, the interface of claims 7 and 17) maintains spacing between the transducing head and the disc at a substantially constant separation distance. However, the slider and the flexible member of Tokuyama et al. are designed to maintain contact between the magnetic head and the disc. As seen in all the figures of Tokuyama et al. and described in the specification, the transducing head is in contact with the disc to read and write data to and from the disc. Thus, the function of the flexible member of Tokuyama et al. is not identical to the function specified by the means element of claim 1, and therefore, the flexible member of Tokuyama et al. is not equivalent to the means element of claim 1.

Because Tokuyama et al. does not teach, suggest, or disclose each and every element required by claim 1, the rejection to claim 1 should be withdrawn. Furthermore, dependant claims 2-5 depend from allowable claim 1 and therefore are allowable as well.

Claim 7 recites a slider for supporting a transducing head proximate a rotating disc. The slider includes a secondary air bearing having a disc opposing face bounded by a front edge and

a second trailing edge, wherein the air bearing surface is defined on the disc opposing face, the air bearing surface having a pad proximate the second trailing edge wherein the transducing head is located on the pad. The slider also includes an interface having a disc opposing face wherein the interface connects the secondary air bearing to a primary air bearing. The interface displaces the transducing head vertically with respect to the primary air bearing to maintain head media spacing between the transducing head and the disc at a substantially constant separation distance as the slider flies above the disc.

Tokuyama et al. does not teach, suggest, or disclose the invention recited by claim 7 of the present application. The Examiner cited the slider shown in FIGS. 21 and 22 of Tokuyama et al. as anticipating the invention recited in claims 7 and 17. As shown in FIGS. 21-22, slider 1 includes a flat surface portion 22 and a bleed surface 3 recessed from the flat surface portion. Magnetic head 6 is mounted to a flexible member 93, or cantilever arm, which extends outwardly from of the bleed surface 3. One end of the flexible member 93 is attached to bleed surface 3 and the head 6 is at the free end of the arm.

As required by claim 7, flexible member 93 of Tokuyama et al. does not have a disc opposing face, and does not displace magnetic head 6 vertically with respect to slider 1 to maintain substantially constant spacing between the head and the disc as the slider flies above the disc. Flexible member 93 operates to maintain contact between magnetic head 6 and disc 100. In addition, Tokuyama et al. does not disclose magnetic head 6 located on a pad of a secondary air bearing as required by claim 7. Tokuyama et al. includes a negative pressure generation member 95 with a recess 96. Magnetic head 6 is attached to free end of flexible member 93 at negative pressure generation member 95. However, negative pressure generation member 95 does not include a pad to which the magnetic head 6 is attached.

Because Tokuyama et al. does not teach, suggest, or disclose at least two elements of claim 7, claim 7 is not anticipated by Tokuyama et al.. Therefore, the rejection to claim 7 should be withdrawn. Furthermore, claims 8-10 and 13 all depend from allowable claim 7, and therefore are allowable as well.

Claim 17 recites a slider for supporting a transducing head proximate a rotating disc. The slider includes a slider body having a disc opposing face bounded by a leading edge and a

trailing edge and the slider body having a longitudinal axis. An air bearing surface is defined on the disc opposing face and the air bearing surface having a pad proximate the trailing edge wherein the transducing head is located on the pad. An interface defined on the disc opposing face of the slider body substantially surrounds the transducing head. The interface displaces the transducing head vertically with respect to the slider body to maintain head media spacing between the transducing head and the disc at a substantially constant separation distance as the slider flies above the disc.

Tokuyama et al. does not teach, suggest, or disclose each and every element as recited by claim 17 of the present application. In particular, the slider of Tokuyama et al. does not include an air bearing surface defined on the disc opposing face having a pad wherein the transducing head is located. Slider 1 of Tokuyama et al. includes flat surface portion 22 and recessed bleed surface 3. Claim 17 requires a transducing head located on an air bearing surface having a pad, and in particular the transducing head located on the pad. Negative pressure generation member 95 of Tokuyama et al. includes magnetic head 6 attached thereto. However, negative pressure generation member 95 is not defined by flat surface portion 22 or bleed surface 3 of slider 1. Therefore, an air bearing surface element of claim 17 is not anticipated by Tokuyama et al.

In addition, claim 17 requires the interface substantially surround the transducing head. Flexible member 93 of Tokuyama et al. does not substantially surround magnetic head 6. Rather, one end of flexible member 93 is attached to bleed surface 3 of the slider and the magnetic head 6 is attached to an opposite free end of the flexible member. Finally, flexible member 93 of Tokuyama et al. does not displace magnetic head 6 vertically with respect to slider 1 to maintain head media spacing at a substantially constant separation distance between magnetic head 6 and disc 100. Claim 17 requires that the interface displace the transducing head vertically with respect to the slider body to maintain head media spacing between the transducing head and the disc. However, flexible member 93 of Tokuyama et al. operates to maintain contact between magnetic head 6 and disc 100. Therefore, the interface element of claim 17 is not anticipated by Tokuyama et al.

Tokuyama et al. does not teach, suggest, or disclose at least two elements of claim 17. Therefore, the rejection to claim 17 should be withdrawn and claim 17 is allowable. Furthermore, claims 18 and 19 depend from allowable claim 17 and are therefore allowable as well.

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Application No.: 10/008,228

Based upon the above comments Notice of Allowance is respectfully requested.

Respectfully submitted,

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Date: 12/4/03

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